

CLAIMS

What is claimed is:

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1. A window glass lifting mechanism comprising:
a sliding member for a window glass;
a cable for driving the sliding member for the window glass and connected to the sliding member;
a motor for driving the cable; and
a sensor measuring tension in said cable.
2. The window glass lifting mechanism according to claim 1, wherein the sensor is provided at the sliding member and measures the force exercised by the cable on the sliding member.
3. The window glass lifting mechanism according to claim 2, wherein the cable has an end stop for the sliding member drive, the sensor being arranged between the end stop and the sliding member.
4. The window glass lifting mechanism according to claim 1, wherein the window glass lifter mechanism further comprises a processing module linked to the sensor and supplying a signal representing trapping by the window glass lifting mechanism.

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5. A window glass lifting mechanism comprising:
 - a sliding member for a window glass;
 - a cable for driving the sliding member for the window glass and connected to the sliding member;
 - a motor for driving the cable;
 - a sensor measuring tension in said cable;
 - a pair of end stops;
 - a flexible and non-compressible sheath provided between the pair of end stops and at least partially surrounding the cable;
 - said sensor measuring the axial force exercised by the cable on the sheath.
6. The window glass lifting mechanism of claim 5, wherein the sensor is arranged between an end stop and one end of the sheath.
7. The window glass lifting mechanism according to claim 6, wherein the sensor is a pressure sensor.
8. The window glass lifting mechanism according to claim 7, wherein the window glass lifting mechanism further comprises a processing module linked to the sensor and supplying a signal representing trapping by the window glass lifting mechanism.

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9. A window glass lifting mechanism comprising:

- a sliding member for a window glass;
- a cable for driving the sliding member for the window glass and connected to the sliding member;
- a motor for driving the cable;
- a sensor measuring tension in said cable;
- a pair of end stops;
- a flexible and non-compressible sheath provided between the pair of end stops and at least partially surrounding the cable;
- a spring arranged between one of said end stops and an end of the sheath; and
- said sensor measuring the position of said end of the sheath.

10. The window glass lifting mechanism according to claim 9, wherein the motor comprises a housing.

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11. The window glass lifting mechanism according to claim 10, wherein the sensor is a switch, and the sensor is fixed to either one of said end of the sheath and the motor housing; the window glass lifting mechanism further comprising an actuator fixed on the other of said end of the sheath and the motor housing, and the actuator faces the switch; and the actuator actuates the switch when a predetermined cable tension is reached.

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12. The window glass lifting mechanism according to claim 11, wherein the switch provides a signal having an amplitude almost proportional to the distance between said end of the sheath and the corresponding end stop.

13. The window glass lifting mechanism according to claim 11, wherein the switch provides an entrapment signal when a predetermined cable tension is reached.

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14. The window glass lifting mechanism according to claim 10, wherein:
one of said end of the sheath and said motor housing provides a metallic portion; and
the sensor is a Hall effect sensor arranged on the other of said end of the sheath and said motor housing and proximate to the metallic portion.

15. The window glass lifting mechanism according to claim 9, wherein the window lift mechanism further comprises a processing module linked to the sensor and supplying a signal representing trapping by the window glass lifting mechanism.

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16. A method for determining entrapment by a window glass lifting mechanism comprising:
- providing a sliding member for a window glass;
 - providing a cable for driving the sliding member for the window glass and connected to the sliding member;
 - providing a motor for driving the cable;
 - providing a sensor measuring tension in said cable
- the method consisting in:
- measuring a tension in the drive cable;
 - comparing the measured tension with an entrapment threshold; and
 - supplying a signal representing entrapment by the window glass lifting mechanism when the measured tension exceeds the threshold value.
17. The method for determining entrapment by a window glass lifting mechanism according to claim 16 further comprising the steps of:
- storing in a memory for the window glass lifting mechanism a reference value as a function of a parameter such as an entrapment threshold;
 - measuring a tension in the window glass lifting cable as a function of that parameter; and
 - comparing the measured tension with the reference value for a given parameter value.
18. The method according to claim 17, wherein the value stored in memory is a function of a cable tension measured during an earlier window glass lifting cycle.

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19. The method of claim 18, wherein the value stored in memory takes account of a cable tension measured during a plurality earlier window glass lifting cycles.

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